**User Generated Content Analytics Assignment 1 (Individual Work), due 09/20 by 23:59 on Canvas**

In this assignment you are an analytics consultant to a (i) brand manager and a (ii) product manager. Your job is to give advice/insights to these individuals based on the analysis of online conversations. The detailed tasks are described below. We use cars as an example of a “high involvement” good.

1. Crawl Edmunds.com discussion forums to fetch about 5,000 posts about cars. I suggest you choose the “Entry Level Luxury Sedans” forum. You can use other forums; however, do not use a forum on a specific brand or car (like BMW or 3-series). Use the Python crawler (crawler.py) posted on Canvas for this purpose. Before starting this assignment, install python on your computer following the social media analytics primer posted on Canvas.
2. Once you fetch the data, find 10 most popular (i.e., most frequently mentioned) brands. To do this, use the python script wordfrequency.py, which creates an output file with words and their frequencies. Replace **models** with **brands** with find\_and\_replace.py (I have provided a list of models for each brand on Canvas) so that from now on you have to deal with only brands and not models. This step is meant to help simplify the analysis.

**Task A:** For the 10 brands you have chosen, calculate the lift ratio for associations between the brands. Use the python script liftcalculations.py to calculate lifts.

Show the brands on a multi-dimensional scaling (MDS) map. Use mds\_new.py for this purpose.

**What insights can you offer brand managers from your analysis in Task A? Be very specific in your response, and provide insights as bullet points and not as a long paragraph.**

**Task B:** Pick 5 most frequently mentioned attributes from the posts. Which brands (choose the 5 most frequently mentioned instead of 10) have the highest association with these attributes? E.g., Audi with style, BMW with performance, etc. (these are just examples, the reality can be very different).

**What advice will you give to a (i) product manager of these brands based on your analysis in Task B? Again, be very specific in your response.**

Note: Given that this assignment has to be completed before we learn sentiment analysis, I am NOT asking for sentiments regarding these brands and attributes. For the time being, you can assume a **positive sentiment in all cases.**

**Task C:** Which is the most aspirational brand among the top 5? How did you find the answer? Show all steps.

**Provide the following details in your write-up (I am not setting a strict page limit, but 3-4 pages, single-spaced, 12 font size should be sufficient even with screenshots)**

1. Which forum you chose (provide URL)
2. Which 10 brands you chose and why – provide # mentions (a summary table is good here)
3. Show all lift ratio calculations in a table.
4. Show the MDS map (put screenshots in your report)
5. State the attributes and the basis of their selection (again, a summary table with frequencies is good here).
6. Show details of “aspirational brand” analysis.

Submit a word or pdf file with the above information. Do not submit any CSV or other files.